Claims

1. Analogue amplifier with multiplexing capability
    comprising:

    (a) an input port (2) for receiving an analogue signal
        (S);

    (b) a test input port (3) for receiving a test signal
        (T);

    (c) an output port (5);

    (d) a control input (4) for receiving a test control
        signal (CRTL-mode) switching the amplifier (1)
        between a normal amplifying mode and a test mode;

    (e) wherein in the normal amplifying mode the analogue
        signal (S) is amplified and transmitted via said
        output port (5);

    (f) wherein in the test mode the test signal (T) is
        routed to said output port (5).

2. Analogue amplifier according to claim 1, wherein an
    amplifying transistor (6) is provided, having:

    a first terminal (7) switched to the said signal input
    (2) in the normal amplifying mode,
    a second terminal (9) which is connected to the output
    port (5) of the said amplifier (1) and to a load
    device (14) which is switched to a first supply
    voltage (VDD) in said normal amplifying mode, and
    a third terminal (8) connected to a tail current sink.

3.   Analogue amplifier according to claim 2 wherein the tail current sink comprises a transistor (17) with:

a first terminal (20) switched to a bias voltage in said normal amplifying mode and to a second supply voltage (V$_{SS}$) in said test mode.

4.   Analogue amplifier according to claim 2 wherein the load device (14) connected to the amplifying transistor (6) is switched to the test input (3) in the said test mode.

5.   Analogue amplifier according to claim 1 wherein the amplifier is a fully differential amplifier.

6.   Analogue amplifier according to claim 1 wherein the test signal is generated by a built in test pattern generator.

7.   Analogue amplifier according to claim 1 wherein the test signal is applied via a pad from an external test pattern generator.